Pine Villa Farm
Otto, NY

The Degenfelders

Tom

Robin

Jason

Justin

Sharon

David

Degenfelder's Family and Farm Goals

- Staying small but profitable
- Farm to be debt free
  - Farm must support itself and our family
- Provide funds to retire early (55)
  - Don't plan to use farm assets to fund retirement
  - Continuously investing outside the business
- Provide opportunity for children to learn work ethic while giving them a chance to be kids
  - Want children to have opportunities beyond the farm
- Enjoy farming

Historical Perspective

- 1996 – Started farming on rented farm in Erie County
  - Bought cows
  - Rented equipment by the hour
- 1997 – Purchased some equipment
- 1998 – Began looking for farm with adequate facilities and land base to be viable for our farming career
  - Urban/sub-urban sprawl
  - Competition for land with neighboring well established farms
  - Landowner's plan for their children to build homes on the farm

Historical Perspective

- 2000 – Purchased farm in North Otto
  - Improved labor efficiency
  - June – moved herd
  - Switched to Ag Bags from tower silos & dry hay
  - July to October – 1/3 of milking herd died
    - Stress of move/poorly ensiled forage
  - Bought unloaders & stored corn silage in tower silos
- 2001 - Put all forage up in tower silos
  - Tried baleage on one field of hay that fall

Poorly Packed Feed

Spoiled forage

Uneven packing
leads to →

Historical Perspective

- 2002 – All baleage; stopped chopping grass
  - Fall – tried grazing milking herd
  - Tried custom harvest of corn silage
- 2003 – Implemented managed grazing
- 2004 – All corn custom chopped
- 2005 – Used pasture more intensively for bred heifers and dry cows
  - Reduced pasture use for milking herd

Pine Villa Farm Trends

Year	Number of Milk Cows	Milk Sold per Cow	Total Forage Acres	Forage Acres per Cow	Corn Silage Tons/Acre	Hay Dry Matter Tons/Acre
2002	90	17,443	260	2.89	18	
2003	90	18,337	260	2.89	18	3.1*
2004	104	17,547	280	2.69	18	2.7
2005	108	19,228	280	2.59	20	2.1**

*Did not take 4th cutting because first 3 cuttings yielded plenty of forage

**Took 5 cuttings due to dry conditions causing low yields early in season

Results

- Updating equipment regularly
- Investing off the farm each year
- Retiring debt very rapidly

Questions?

Pine Villa – **Feeding System** as Part of the Whole

Ration Objectives

- Looking for maximum components yield rather than pounds of milk
- Maximize intake of quality forage
- Use quality forage to grow heifers
  - No grain from 8 to 22 months of age

The Right Tool for the Job

Pine Villa 2005 Forage Lab Results – Key Feeding and Storage Quality Factors

Forage	DM%	NDF%	NDFD 30hr % of NDF	CP%	Sol. P % of CP	NEL MCAL/LB
Grass						
Ryegrass Baleage	25.7	49.4		17.3	47	.62
2nd Cutting Baleage	29.5	44.6		24.4	58	.66
3rd Cutting Baleage	35.2	51.5		18.4	56	.64
3rd Cutting Dry Hay	91.9	54.3		21.0	27	.60
5th Cutting Baleage	28.8	42.1		25.8	55	.65
5th Cutting Baleage	35.6	44.7		19.7	65	.72
Corn Silage						
BMR	34.7	38.7	60	9.0	48	.81
Highly Digestible	29.7	43.8	50	9.6	52	.73

Don’t Wrap Crap!!

- If you don’t want to feed it to your cows why feed it to your heifers

Questions?

Pine Villa – **Crops** as Part of the Whole

Achieve Best Forage Quality Each Season Allows

Soils

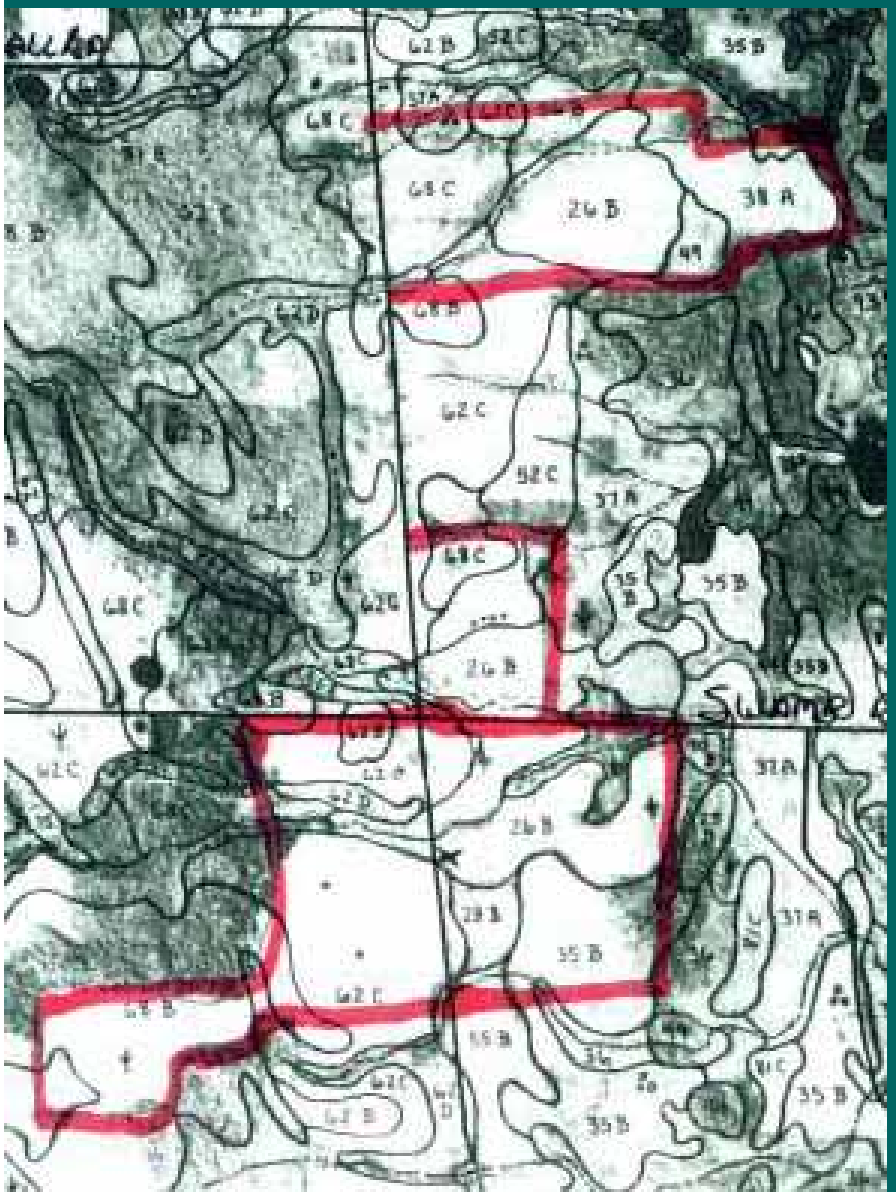
Corn Acreage

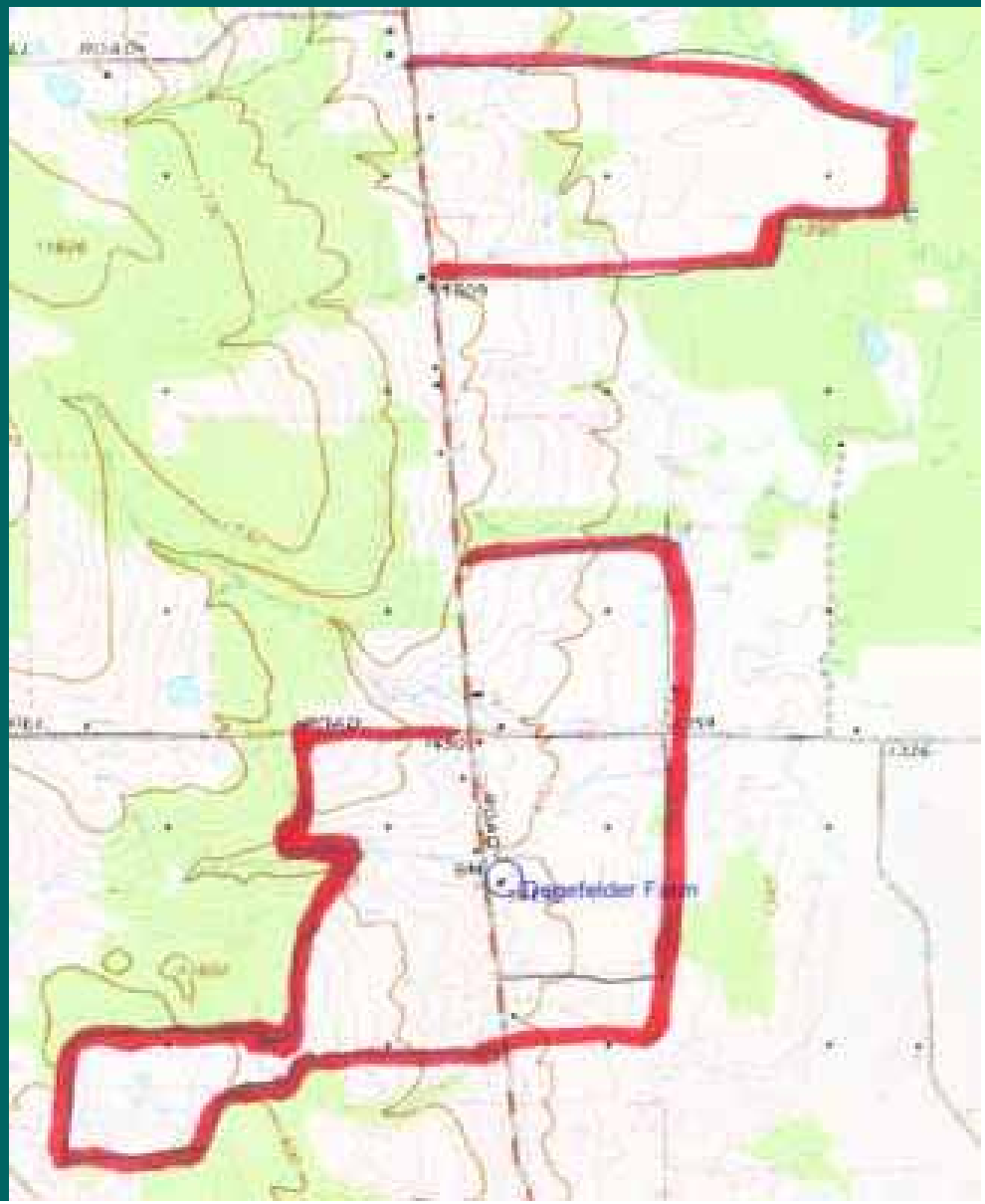
- Chenango Channery Silt Loam, Fan
- Mardin Channery Silt Loam

Hay Acreage

- Rhinebeck Silt Loam
- Niagara Silt Loam
- Volusia Channery Silt Loam

Soils & Topographic Maps





Crop Production

- Match crop to soils & elevation
- Limited ability to rotate crops
- Soils dictate grass species & cutting management strategies employed on field by field basis
- Must fertilize for quality forage production
- Grazing reduces manure availability for cropped fields

What We Use to Get Job Done

- Corn silage
  - We do soil prep
    - 5 bottom mold board plow or chisel plow
    - 20’ disk & 25’ Cultimulcher
  - Custom sprayed, planted & harvested
- Hay crop
  - 11’ discbine, two row tedder, 12 wheel v-rake
  - Claas 250 Roto-cut round baler (4’x4’ bale)
  - 3 bale wagons – hold 32 baleage or 58 dry
  - H & S in-line bale wrapper

What I look for in Corn Varieties

- Early on
  - Standability
  - Days to maturity
  - Cost of seed
- Now
  - High whole plant digestibility
  - Low fiber
  - Willing to pay for these qualities

Hay Crop Strategies

- Rely on grasses
- Manage fertility based upon the season
- Timely harvest
  - Cut buy the calendar
    - 30 day interval
  - Aggressive cutting practices
    - Reduced weed population

Criteria for Fertilizing Grasses

- Weather
- Forage inventory
  - 2003/2004 - plenty of moisture
    - Lots of feed
    - Less need for fertilizer use
    - Grasses yielded less protein
  - 2005 – very dry
    - Short crop – still kept up with harvest schedule
    - Used extra fertilizer after each cutting to stimulate growth

Questions?

Pine Villa – **Harvest System** as Part of the Whole

Harvest System

Harvest Strategy

- Group fields for harvest
  - 20 to 30 acres each day
  - Location, grass species, feeding group
- Process
  - Mow in afternoon
  - Rake 2 or 3 rows into 1 during night or early morning
  - Bale mid to late morning; depending upon moisture & weather conditions
    - Adjust ground speed for windrow size & moisture to get a uniform, solid bale
  - Wrap as soon as possible
    - Depending upon labor availability
    - Always **wrap the same day** baled

Pasture

- Advantages
  - Flexible system
  - Reduces labor in barn
  - Provides healthy cow environment
  - High quality feed; if managed properly
  - Reduced cull rate
- Disadvantages
  - Weather
  - Possible lower milk components
  - Quality varies day to day
  - Hard to keep ration consistent
  - Requires back-up feed source (extreme weather)

Baleage

- Advantages
  - Unlimited storage
  - Separate by fields & cuttings
  - Flexible - harvest whenever weather allows
  - Less leaf loss than dry hay
  - Fewer people required than for chopping
  - Cow health – length of cut
  - Smaller equipment needed
- Disadvantages
  - Plastic – cost, disposal, & holes
  - Possible lower feed intake - bulky feed
  - Not economical for large quantities of forage
  - Wildlife damage to wrap
  - Less uniform feed

Custom Hire

- Minimize investment in little used machinery
- Allows timely hay harvest
- Extra labor is part of the deal
- Faster harvest yields more consistent feed
  - 4 to 5 days compared to 10 to 14 days when we did it ourselves
- Bring equipment for filling & packing bunk
- Harvest risk managed with variety selection
  - All corn planted in one day – select different day length corn to ensure adequate moisture at harvest

Questions?

Pine Villa – Storage System as Part of the Whole

Measures of Success

- Before Change
  - 58 to 60 lbs. per cow
  - 3.84 to 3.87 fat test
  - 3.0 to 3.1 protein test
  - Forage:Grain = 58:42
- With New Feed
  - 62 to 65 lbs. per cow
  - 4.0 to 4.22 fat test
  - 3.2 to 3.3 protein test
  - Forage:Grain = 62:38
  - Dropped
    - Rumensin
    - 200 to 250 Lbs. grain daily
    - 2 bags energy booster per week

$$ Savings & Earnings $$

With 110 cows

Coop avg. base milk price	Our base milk price
$14.04	$15.68

Reduced costs --- $1,265 per month

Milk Increase

4.5 Lbs. per cow per day

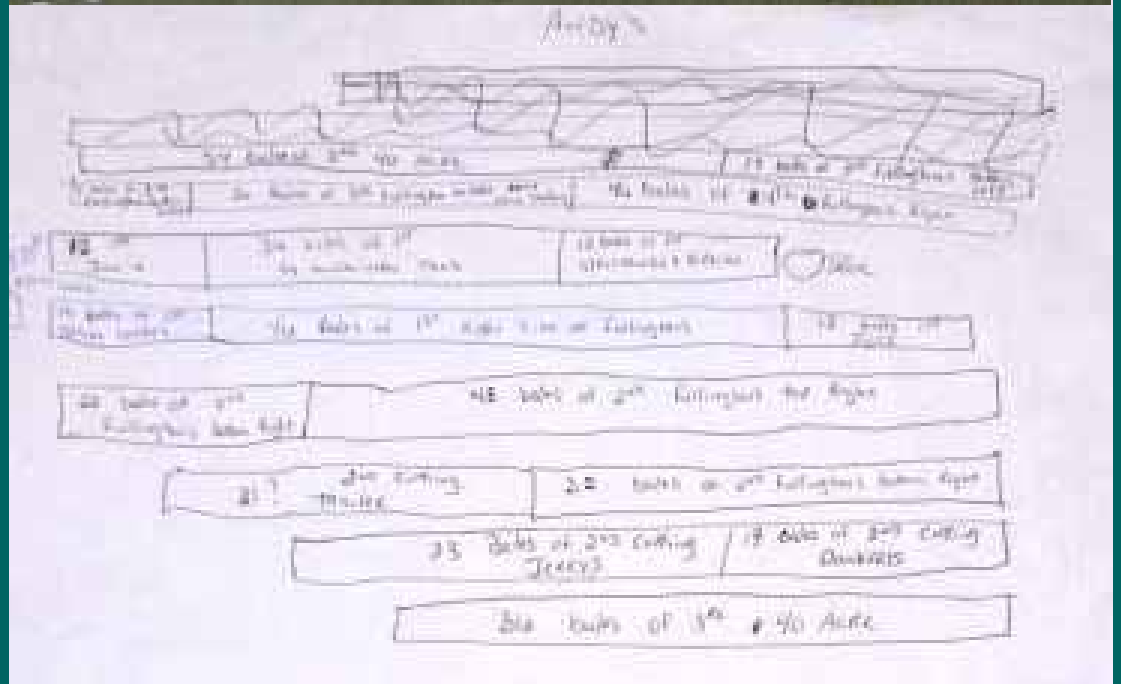
12,960 pounds = $2,000 per month

Change in Net Income = $3,265 per month

Annual Potential Change in Profit = $39,180

Storage Management

Know What's Where



True Measure of Success

Questions?

Pine Villa –**Measuring Success**
Comparing Results to Goals

Questions?